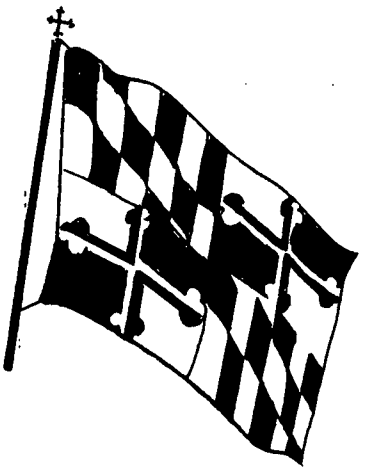
REPORT TO THE

GOVERNOR OF MARYLAND

AND

MARYLAND GENERAL ASSEMBLY



FROM THE

COMMISSION ON

PESTICIDES

1 September 1968

STATE OF MARYLAND
GOVERNOR'S COMMISSION ON PESTICIDES

August 21, 1968

TO THE GOVERNOR AND GENERAL ASSEMBLY OF MARYLAND:

In accordance with Senate Joint Resolution No. 54 of the 1967 Session of the General Assembly and Senate Resolution No. 69 of the 1968 Session, we present herewith a report from your Commission on Pesticides, certain pertinent information, and recommended legislation.

The members of the Commission were most faithful in their voluntary participation in a long series of meetings and effective in providing constructive suggestions. As you will see, we believe that Maryland should establish a center of responsibility in relation to pesticides and license certain activities to protect the public interest. At the same time, we have recognized that almost all users are conscientious and careful in their use of these materials. We believe that the recommended program will increase protection for the public without undue interference with those who depend upon these important chemical materials.

The members of the Commission would be glad to provide any further assistance you request.

Very truly yours,

L. Eugene Cronin

L. Eugene Cronin
Chairman

mgm

REPORT OF
MARYLAND COMMISSION ON PESTICIDES

I N D E X

REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY OF MARYLAND FROM THE COMMISSION ON PESTICIDES

1 August 1968

The Pesticide Commission met in 9 sessions to meet the requests of Senate Joint Resolution No. 54 of the 1967 Session:

1. "to review the problems arising from the harmful uses of pesticides, herbicides and any other chemicals used to repel insects"
2. "to review any legislation designed to regulate and control the problems identified by the Commission and to prepare such legislation for submission to the 1968 General Assembly (extended to the 1969 General Assembly by Senate Joint Resolution No. 69 of the 1968 Session)"

An attempt was made to evaluate the widespread uses in agriculture and also those uses which are likely to be overlooked but present potential health hazards to humans, livestock and wildlife or threaten economic losses to the general public.

We present brief comment on each of the major areas of pesticide use, suggestions on research and education, and

recommended legislation for consideration by the General Assembly of Maryland.

AGRICULTURE

The major tonnage of pesticide use in Maryland is in agriculture, including fruit trees and vegetable crops. The use of such material is essential to continue the present quantity and quality of such crops. However, undesirable secondary and indirect effects on other resources are possible and must be held to the absolute minimum. The principal problems include toxicity to more than one species and excessive durability. Research is constantly underway to provide new products with greater specificity and shorter life, as well as better fundamental understanding of pesticides and their effects.

It is the opinion of the Commission that (1) the selection and use of various pesticides involved in interstate commerce is already controlled by guidelines established through regulations of the U. S. Department of Agriculture, U. S. Food and Drug Administration, and Maryland law; (2) rigid enforcement of residue tolerances ensures compliance on food crops intended for interstate movement; and (3) the majority of Maryland users have had years of experience and education in selecting materials and following label directions.

Changes occur from year to year in the allowed uses of pesticides in agriculture. Notification of such changes is widely dispersed through many channels to the users.

The Commission recommends continuing education of agricultural users since occasional undesirable accidents still occur (Appendix A) and continuation of the broad and productive federal efforts in control and improvement of pesticides and their optimal uses.

Custom Application

There is an increasing use of hired applicators for the application of relatively large quantities of pesticides in open areas in Maryland. Examples include spraying of rights-of-way of roads, railroads and power lines; insect control in fields of agricultural crops by airplane or power sprayer; and control of vegetation on large industrial sites. Adjacent areas can be contaminated and destroyed, and use of improper materials may have indirect deleterious effects, as shown in Appendices B and C. Some of this program is carried out by contractors from other states, and there is now no requirement that applicators be registered or licensed in Maryland.

The Commission recommends that all such custom applicators operating in Maryland be licensed under requirements established by the regulating Board.

Mosquito Control

The use of pesticides in mosquito control in Maryland is widespread. This program is of high value to many citizens, although some detrimental effects have been encountered. It is the opinion of the Pesticides Commission that no additional Maryland legislation is needed at this time because of (1) the control of the public program by the State Entomologists, (2) the long-lasting chlorinated hydrocarbons have been excluded from the public program and replaced completely by short-lived materials which leave minimal toxic residues, and (3) the acreage involved is small in relation to the total acreage of the State.

Details of the mosquito control program are given in Appendix D - a letter from the State Entomologist to the Board of Commissioners of Prince George's County.

In our opinion, the problems brought to our attention do not require state legislation and could be resolved by improved participation by the involved local communities. The Commission is aware of continuing concern over effects on wildlife populations and recommends continuation of research in this field and application of new knowledge as it emerges.

Pest Control Industry

There is a well-established industry for the control of structural pests in Maryland. It is the opinion of the Pesticide Commission that no direct legislation is required here except as the industry expands into custom applications apart from buildings because:

1. The total amount of pesticides used is small.
2. The use is largely restricted to the interior of buildings.
3. The selection of pesticides suitable for use is small.
4. The hazard is very low to the public and virtually nil to wild life.

We are, however, concerned with the high vulnerability of the homeowner to the sometimes unprincipled and incompetent operator, who is not now licensed. To protect the customer and also the many capable and properly trained persons in the pest control industry, the Commission recommends that all such applicators be licensed if they meet the requirements established by the regulatory board.

Other Users

Many activities in Maryland involve use of pesticides in the normal conduct of business and service. These include

nurseries, flower growers, arborists, green-house operators and others. These users must be careful and conscientious in the use of these potentially dangerous materials. We have received no indication that they are not, and feel that pertinent legislation is not now needed in Maryland.

The Commission recognizes, however, that there will be changes in pesticide materials and uses. We therefore recommend that the regulating Board be empowered to promulgate such additional regulations as may become necessary in the public interest. It is our intention that this should protect the public with the least possible interference with these and other users.

Recommended Legislation

The Pesticide Commission studied draft legislation prepared earlier by Dr. Charles Ellington of the University of Maryland; by the Association of American Pesticide Control Officials; and by the U. S. Department of Agriculture for the Council of State Governments. Dr. Ellington's draft has been especially helpful. We have also collected and drawn from the pesticide legislation of all 50 states.

We recommend adoption of legislation which will accomplish the following purposes:

1. Establish a center for control of the use of pesticides in Maryland which will:

a. License all persons applying pesticides in Maryland, with certain defined exceptions.

b. Adopt appropriate regulations for other pesticide uses.

c. Guide the use of pesticides by public agencies.

d. Carry out an appropriate educational program and encourage further research for maximum public benefit and minimum public damage.

2. Create an Advisory Committee to that Board to guide it and assist it.

3. Provide certain essential definitions and guidelines for the Board.

Subcommittees of the Commission have provided reports on education relating to pesticides and on further research of value to Maryland (see Appendices E and F). We urge that these be implemented.

We recommend to the Governor and General Assembly of Maryland that this legislation be adopted, that the Advisory Committee be appointed promptly, and that funds be provided to support the expenses of the Advisory Committee and to implement the intentions of this legislation.

Respectfully submitted,

L. Eugene Cronin
Chairman

MARYLAND STATE BOARD OF AGRICULTURE

LIVESTOCK SANITARY SERVICE - Symons Hall

University of Maryland
College Park, Md.
20742

July 31, 1968

Dr. C. P. Ellington, Director
Service and Control Programs
Symons Hall
Campus

Dear Dr. Ellington:

Dr. Hammond, our Extension Veterinarian, has reported to me the facts concerning the loss of the heifers in Washington County. It is as follows:

Forty-one heifers died on June 24, 1968, in Washington County after being sprayed to control flies.

At 8:30 a.m. the owner put these heifers, all due to calve this fall, in the barn to spray them for fly control. He took one quart of liquid material from an unlabeled one gallon glass container, mixed it with water to make one gallon and with a knapsack sprayer, sprayed all of the heifers.

When he finished spraying, approximately one hour later, one of the heifers seemed extra nervous, some of the others were not quite "right". He called his veterinarian, Dr. Howard Baker. Upon Dr. Baker's recommendation, he let the heifers out of the barn and returned to the house to bathe. Dr. Baker arrived at the farm at 9:45 a.m.; at that time 39 of the heifers were dead. By 10:00 a.m. all 41 were dead.

Two of the animals, a few cc of unused spray, and tissue specimens from two other animals were sent to the Livestock Laboratory in College Park for analysis. The diagnosis was Methyl Parathion.

This case is unusual in that 100 percent of the animals involved died. It is fortunate that the owner was not seriously affected. It is very sad in that we have not been able to make people aware of the toxicity of these chemicals to prevent losses like this.

Sincerely,

T. A. Ladson

T. A. Ladson
Director

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A Pesticide Incident at Black Swamp Creek, Prince George's County

At some time during the third week of May 1966, a Custom Pesticide Applicator from out-of-the-state began his herbicide spray operations along the high voltage transmission Right-of-Way of the Potomac Electric Power Company's Chalk Point Power Generating Station which is located at the southeastern most tip of Prince George's County. At the same time, along the western watershed of the Patuxent River tobacco farmers were beginning the initial transplantings of tobacco plants from the Beds to the tobacco fields for the 1966 Season.

By the middle of the fourth week of May, a strange disease appeared in the tobacco beds of the Black Swamp Creek area - about seven miles up-river from Chalk Point. Plants removed from these beds also showed the distortions in the fields.

An investigation during the latter part of the fourth week revealed that the Custom Pesticide Applicator had been using Black Swamp Creek as a source of water and AS A PLACE TO CLEAN HIS EQUIPMENT AT THE END OF THE WORK DAY. The tobacco farmers had also been using the creek for irrigating their tobacco beds. Research Scientists from the Maryland State Tobacco Research Station called in to investigate the matter were of the professional opinion that the distortions appearing in the tobacco beds was due to some form of herbicide such as 2-4-D.

The Pesticide Incident at Black Swamp Creek could be treated as one of those freak situations--even ignoring the fact that private property rights were violated in the effort to obtain water for the spray equipment. By the middle of June, information slowly appeared that tobacco beds for miles south and north of the Creek were affected in the same way. Trees adjacent to the right-of-way were damaged as well as shrubbery near houses. In fact, damage was observed seven miles north of the County Seat of Prince George's County - a distance of over twenty miles from the starting point at Chalk Point. As long as there is no State regulating of Custom Pesticide Applicators, it is reasonable to assume that it can happen again. Such was the opinion of the Southern Maryland Tobacco Farmers and State Senator Wineland in 1966. Since that time, neither the danger or the opinions have changed.

Prepared by: Richard S. Le Vieux
Aquasco Farm
Aquasco, MARYLAND

MARYLAND STATE BOARD OF AGRICULTURE
LIVE STOCK SANITARY SERVICE LABORATORY
CALVERT ROAD
COLLEGE PARK, MARYLAND 20742

July 31, 1968

Dr. T.A. Ladson, Director
Livestock Sanitary Service
Symons Hall
University of Maryland
College Park, Maryland

Dear Dr. Ladson:

As per your telephone request of July 22, 1968, I am submitting the pertinent facts on the arsenic poisoning episode that occurred at the Acredale Show Ring north of College Park on August 21, 1966 in the following order:

A - Application of Spray (Where and When Used)
B - Clinical History - Treatment
C - Role of the Livestock Sanitary Service Laboratory in College Park
D - Extent of Losses and Indemnities Paid

A - According to information furnished us, the Maryland Capital Park and Planning Commission applied by spraying, an arsenical weed killer at the Acredale Show Ring near College Park three days prior to holding a horse show on August 21, 1966. The material used was "Kill All" weed killer - made by the Miller Chemical and Fertilizer Company, Baltimore 15, Maryland. The composition of this weed killer was as follows:

Contained	76.9%	Sodium arsenite
equivalent to	58.39%	Arsenic trioxide
or	44.00%	Arsenic
	23.10%	Inert ingredients

The label also read "Poisonous if swallowed. Keep livestock and domestic animals off treated area."

Personnel of the Maryland Capital Park and Planning Commission sprayed the parking lot area outside the Acredale Show Ring with 15 gallons of a 1:20 dilution of the concentrated spray. According to information received, the spraying was done by the Maryland Capital Park and Planning Commission for the purpose of destroying grass and weeds in the parking lot area.

B - Signs of illness were first noted early in the afternoon of August 21st, 1966. Outstanding signs of illness included colic (abdominal pain), staggering, diarrhea, and death 3 - 7 hours after onset of first noticeable signs. Folowing the appearance of the above signs, practicing veterinarians were summoned by the various owners whose horses were involved. Emergency treatment was instituted.

C - Role of the Livestock Sanitary Service Laboratory consisted of performing gross and microscopic examinations of two horses submitted to us. Also, liver, intestinal contents and stomach contents were dried and submitted to the State Inspection Service Laboratory. The outstanding findings on post mortem examination were:

1. Bluish discoloration of mucous membranes
2. Hemorrhages of both the inner and outer lining of the heart
3. Intense reddening of the lining of the stomach and small intestines
4. Hemorrhages in the capsule of the spleen, with an increase in the red pulp (seen on cut surface)

Chemical findings of dried organs and stomach and intestinal contents are given in the chart below on the two animals submitted to the lab. Chemical findings on specimens collected by a practicing veterinarian from three other animals are also given.

Autopsy[1,2] Cases	Amount of Arsenic Found (Parts Per Million)		
	Liver	Intestinal Contents	Stomach Contents
1	12	100	150
2	-	-	400
Holbrook Cases* (liver, stomach content submitted to LSSL)			
a	25	-	125
b	15	-	200
c	7	-	300

1 - Palomino mare submitted through Dr. J.R. Keeler, Bethesda, Maryland, under Accession #29360 dated 8 - 21 - 66.

2 - Pony mare submitted through Dr. J.J. Johnson, College Park, Maryland, under Accession #29361 dated 8 - 21 - 66.

* - Specimens submitted by Dr. H. Holbrook, Rockville, Maryland, under Accession #29389 dated 8 - 24 - 66.

Dr. T. A. Ladson -3- July 31, 1968

Chemical analyses of grass samples are shown below:

Sample #	Location - Designation	P.P.M. Arsenic
1[x]	Show Ring	100
1	Field Office by Fence	25,000
2	Field Office by Fence	2,000
2	Show Ring	3
3	Stand Area	40
4	Stand area	30
5	Parking area outside fence	10
6	Parking area inside fence	200
7	Drinking trough	60
8[y]	Parking area back of fence	120
a	Grass composite collected 8/24	1,250
b	Grass composite collected 8/25	5,000
c	Grass composite collected 8/26	25,000
I[1]	Grass around grand stand	370
II	Center of parking lot	125
III	Right side of parking lot	250
IV[2]	Left side of parking lot	300
a	No designation given	10
b	"	5
c	"	5
d	"	12
e	"	10
f	"	1,000

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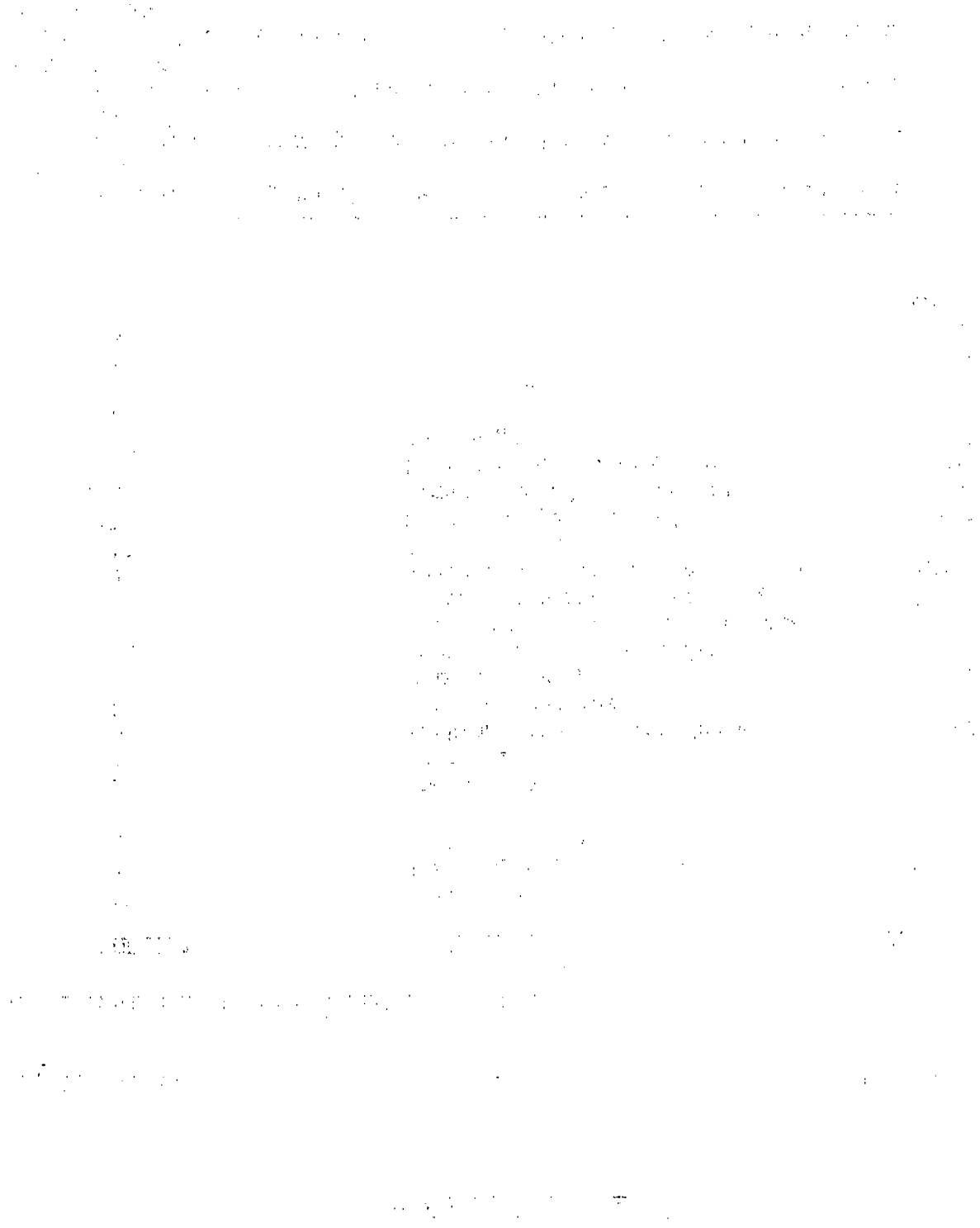
x - Samples submitted by Maryland Park and Planning Commission as Accession #29440 dated 9-2-66

y - Samples submitted by Maryland Park and Planning Commission as Accession #29393 dated 8-25-66

1 - Samples submitted by Maryland Park and Planning Commission as Accession #29504 dated 9-19-66

2 - Samples submitted by Maryland Park and Planning Commission as Accession #29552 dated 9-30-66



According to Garner (revised by Clark), "Veterinary Toxicology" 3rd Edition, 1967, Williams and Wilkens, Baltimore, page 48,

> "In view of the number of factors involved it is difficult to state categorically what constitutes a toxic dose (of arsenic) in any one species."

According to the above authors, the average oral lethal dose of Sodium arsenite for the horse may be considered to be 1 - 3 gm. Thus, a horse consuming one pound of grass having 25,000 parts per million of arsenic will have consumed a lethal dose. Similarly, a horse consuming the grass containing 5,000 parts per million of arsenic would have to eat close to five pounds of that material. Based upon experience in our laboratory, finding 25 parts per million of arsenic or more in the stomach contents of a horse may be considered fatal.

Sincerely,

Bernard Sass

Bernard Sass, B.S., V.M.D.
Assistant Veterinarian

BS:ml

MARYLAND STATE BOARD OF AGRICULTURE

OFFICE OF THE STATE ENTOMOLOGIST

University of Maryland
College Park, Md.
20740

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March 13, 1968

Mrs. Gladys N. Spellman, Chairman
Prince George's County Commissioners,
Upper Marlboro, Maryland. 20870

Dear Mrs. Spellman,

It has come to my attention that every now and then a citizen, not fully understanding the nature of our cooperative mosquito control work, expresses concern to the County Commissioners that mosquito control may be poisoning people, songbirds and wildlife generally. It occurs to me that it may be appropriate to make available to the Commissioners facts concerning mosquito control sprays as they are used in Maryland. It is my understanding that the commissioners will hold a hearing to review this subject at 10:30 A.M., March 26. I would appreciate this letter being included with the records of the hearing. A previous commitment will prevent my attendance.

Currently we have more than 800 communities participating in mosquito control throughout the State of Maryland, of which 65 are in Prince George's County. And as you know, work is undertaken only when requested by the community. Participation is entirely on a voluntary basis and predicated on community need and local financial assistance. There are always a few people with concern, but the number comparatively speaking is few. In the operation of the program we have always felt that the concerns of people are deserving of recognition and in our spray operations have endeavored to give these people appropriate consideration.

Over a period of many years the Communicable Disease Center of the U.S. Public Health Service has released each year a statement of recommendations covering U. S. Public Health pesticides. In our mosquito control operations we follow the guidelines of that organization's recommendations. We select those chemicals which permit us to spray with safety. The object is safety for people, pets, bees, wildlife and the spray operators. The three chemicals normally used in mosquito control in Maryland are malathion, naled and Abate.

There is a Federal Committee on Pest Control whose objective is to give guidance on the safe use of pesticides. Represented on this committee are: The Public Health Service, The Food and Drug Administration, Fish and Wildlife Service, The Department of the Interior, The Department of Agriculture, The Forest Service and the Department of Defense. The chemicals being used for mosquito control in Maryland are among those recognized as safe when appropriately used. All of the above agencies employ the chemicals that are used for mosquito control in Maryland, in their pest control operations.

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Mrs. Gladys N. Spellman

Federal law requires that all pesticide products be registered with the U. S. Department of Agriculture before they can be marketed in interstate commerce. Before registering the product, the department requires the manufacturer to provide evidence that the product will be effective against the pest or pests listed on the label and will not injure humans, crops, livestock or wildlife when used as directed. As further protection, pesticides to be used on food crops must meet special additional requirements that have to do with residues. The insecticides used in our mosquito spray work have label approval under federal law for mosquito control.

Millions of human lives have been and are being saved throughout the world because of the use of pesticides for mosquito control. Currently, the health problem is not acute in Maryland. But encephalitis is transmitted by mosquitoes from birds to humans and there have been deaths in Maryland. Encephalitis on occasions is and has been of great concern along the Atlantic seaboard. Other mosquito transmitted diseases that must be reckoned with in Maryland are swamp fever in horses, encephalitis in horses and heart worms in dogs.

If I can be of further assistance to the Commissioners in clarifying concerns about possible hazards from the insecticides used in mosquito control, please feel free to call on me.

Sincerely yours,

George S. Langford,
State Entomologist.

GSL:jm

cc: Commissioner Aluisi
Commissioner Baggett
Commissioner Brooke
Commissioner Francois
Mrs. Jean Schmuhl, Clerk
Mr. David Ross, Attorney
Mr. Mallack, Mosquito Control Entomologist

APPENDIX E

April 22, 1968

Recommendations of Education Committee

1. Education is needed regarding the proper use, handling, storage and disposal of pesticides and their containers.

2. We recommend that an education program on pesticides be started in the public school system. If possible, it should begin in the lower grades and also be required of future teachers in their college training program. It is possible that this program can be a part of the proposed environmental education program. It is recognized that the medical and nursing professions have an important relationship to the pesticide industry. It is desirable that continued specific education in the use of pesticides be furnished to doctors and nurses in their training programs.

3. We recommend that pesticide education go beyond the school system. It should be offered to social and youth organizations such as Boy Scouts, garden clubs, etc. We recommend that the Commission on Environmental Education endeavor to organize a pool of pesticide speakers for these social and youth organizations. The Commission would advise these organizations and urge them to utilize these programs. The speaker pool would come from groups such as the Extension Service, industry and members of the natural resources groups.

4. We recommend that specific pesticide education be required of social workers due to their contacts with the general public who may well need various pest control measures.

5. We recommend that information on pesticides be regulated through one agency; namely, the State Board of Agriculture.

6. The Committee recommends that the Pesticide Commission incorporate in their report the recommendation that pesticide sales be outlawed in food and drug establishments due to possible contamination.

George H. Reid, Jr., Chairman
Joseph J. Weinburg
Edwin D. Long, Jr.
John H. Rinehart
Frederick W. Sieling
George Langford
Bruce E. Crum

May 10, 1968

REPORT OF RESEARCH COMMITTEE TO THE GOVERNOR'S COMMISSION ON PESTICIDES

Members of the Committee have reviewed the research on side effects of pesticide use as it affects the consumer, soils, terrestrial and aquatic plant life, aquatic animal life, and the natural waters of the State.

There has been a considerable research effort expended to provide knowledge about unwanted side effects of pesticides use. Of particular significance, research has demonstrated the very significant potential harmful effects of the use of DDT, Dieldrin, Endrin and other Chlorinated Hydrocarbons upon some important species of fauna and flora.

Monitoring the Maryland environment for pesticides and their residue in soils, water, plant and animal life will be required on a continuing basis and also on an expanded basis with the advent of new and in some cases more potent pesticides. A combination of monitoring and research is the only means known whereby the integrity and the utility of the air, land and water environment can be assured for purposes of safeguarding health, preventing air and water pollution, and providing for a reasonable abundance of fish and wildlife.

Albert E. Sanderson, Jr., Chairman
Robert Rubelman
Howard E. Chaney
Richard L. Marshall
Frederick W. Sieling

May 10, 1968

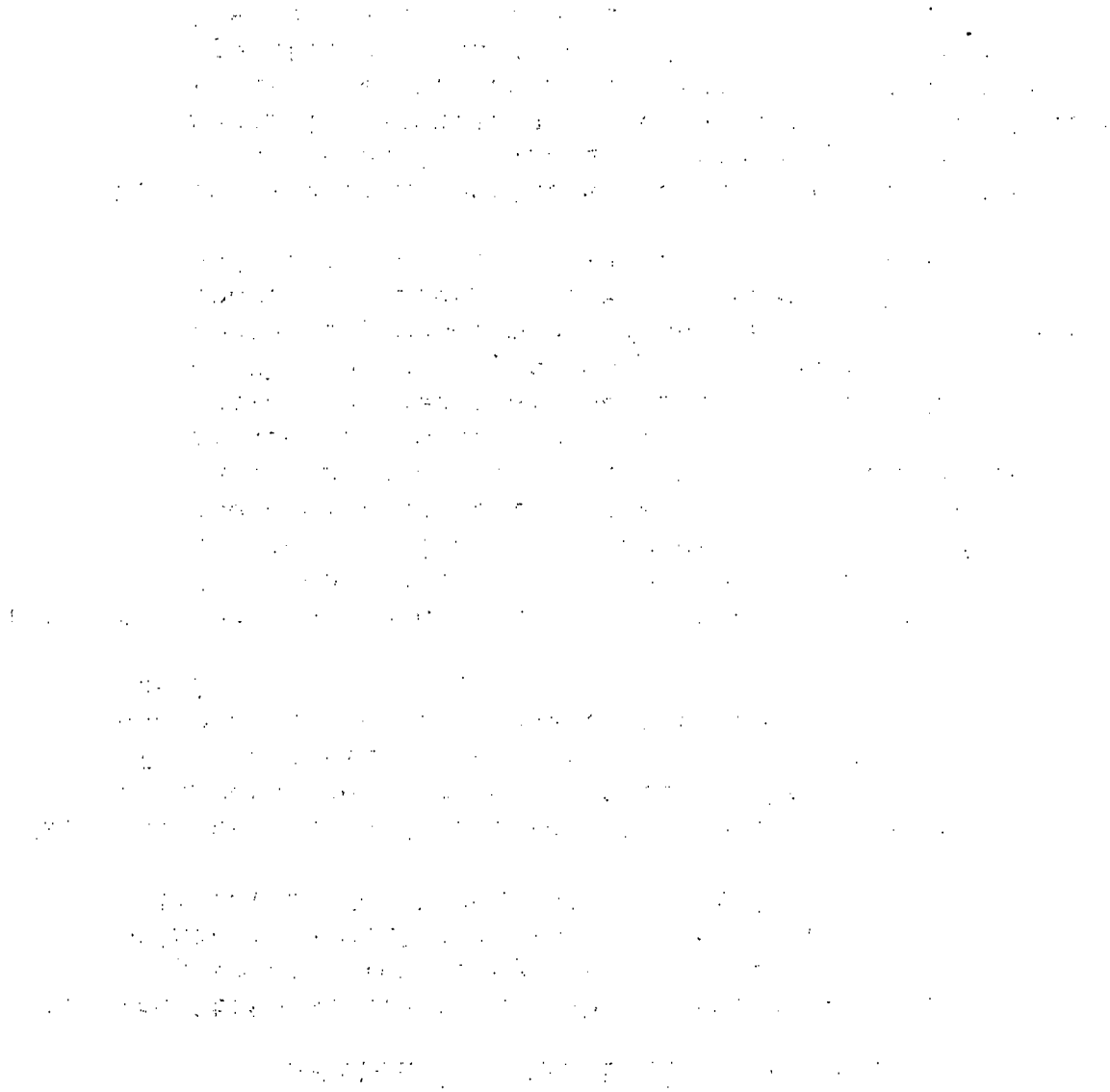
RECOMMENDATIONS OF RESEARCH COMMITTEE

I. The State should establish a pesticides monitoring program coordinated by the interested agencies to maintain surveillance in Chesapeake Bay and major tributaries for Maryland's particular interests.

II. The State should encourage the federal government to expand the program for testing the side effects of toxic chemicals proposed for use on wide scale where significant damage to the ecosystem might result.

III. A. The State should establish a Pesticides Research Review Committee representing all the concerned state agencies responsible for use and/or control of pesticides whether on land, in water, or air. The Review Committee should be composed of one member of each of the following agencies: Natural Resources Institute of the University of Maryland, Department of Water Resources, Department of Game & Inland Fish, State Board of Agriculture, State Department of Health, and Department of Chesapeake Bay Affairs.

B. The Research Committee should advise the concerned agencies, including the Maryland Board of Natural Resources and the Maryland Board of Public Works, when and where research has indicated that specific pesticide use is/or can be detrimental to the interests of the public.



PROPOSED LEGISLATION ON PESTICIDES

drafted by

GOVERNOR'S COMMISSION ON PESTICIDES

1 August 1968

I. Definitions. As used in this Act, unless the context otherwise requires:

A. "Board" means the University of Maryland-State Board of Agriculture.

B. "Agent or authorized agent" means an agent of the University of Maryland-State Board of Agriculture.

C. "Pesticide" means, but is not limited to, (1) any substance or mixture of substance intended to prevent, destroy, control, repel, or mitigate any insect or related arthropod, rodent, nematode, predatory animal, snail, slug, fungus, bacterium, weed, and any other form of plant or animal life or virus, except virus on or in living man or other animal, that may infest, infect or be detrimental to vegetation, man, animal, structure, or household or be present in any environment, or which the Board may declare to be a pest, and (2) any substance or mixture of substances intended to be used as a plant regulator, defoliant or desiccant, (3) any spray adjuvant, such as a wetting agent, spreading agent, deposit builder, adhesive, emulsifying agent, deflocculating agent, water modifier, or similar agent with or without toxic

properties of its own, intended to be used with any other pesticide as an aid to the application or effect thereof, and sold in a package or container separate from that of the pesticide with which it is to be used, and (4) any other substances which the Board may identify as pesticides by formal action.

D. "Person" means a natural person, individual, firm, partnership, corporation, company, society, association, body politic or agency thereof, or any organized group of persons whether incorporated or not and every officer, agent or employee thereof. This term shall import either the singular or plural as the case may be.

E. "Pest" means, but is not limited to, any insect or related arthropod, rodent, nematode, snail, slug, weed, and any form of plant or animal life or virus, except virus on or in living man or other animal, which is normally considered to be a pest or which the Board may declare to be a pest.

F. "Aircraft" means any mechanism used in flight.

G. "Application" means the spreading of pesticides, by contract or otherwise, by or for any person owning or renting property.

H. "Device" means any instrument or contrivance intended to trap, destroy, control, repel or mitigate pests, or to destroy, control, repel or mitigate fungi, nematodes or such other pests as may be designated by the Board.

I. "Custom Applicator" as used in this Act, means any person who, in this State, by contract or otherwise, applies by aerial, ground, or any hand or mechanical equipment, pesticides, to any waters, land, plants, structure or animals, for hire.

J. "Pest Control Consultant" as used in this Act, shall mean any person who, for a fee, offers or supplies technical advice or supervision, or recommends the use of specific pesticides, for the purpose of controlling pests.

K. "Pest Control Operator" as used in this Act, shall mean a person engaged for hire in the business of structural pest control, commercial extermination or fumigation, or in any other service involving the use of pesticides or devices in this State for the control, eradication, mitigation, or prevention of pests in or around houses and buildings.

II. Licensing requirements, Pesticide Fund.

A. Each custom applicator, pest control consultant, pest control operator, and person applying pesticides is required to obtain an annual license from the Board, subject to the exemptions of Section V.

B. Each application must be accompanied by a license fee and evidence of such financial responsibility as shall be required by the Board.

C. All fees collected under the provisions of this Act, shall be placed in a special fund known as the "Pesticide Fund" which fund is hereby appropriated to the Board and shall be used for the administration of this Act.

III. Functions of the Board.

The Board, by suitable administrative procedures, including public hearings when appropriate, shall:

A. Establish qualifications for licensing in each category to assure competence and responsibility in the application of pesticides.

B. Establish appropriate license fees.

C. Establish minimum requirements for financial responsibility for all damages which may be incurred in the commercial application of pesticides.

D. Issue licenses to those meeting the requirements established by the Board and reject any applications which do not meet those requirements.

E. Establish the conditions under which licenses may be revoked.

F. Adopt rules and regulations governing the storage, use and disposal of pesticides and their containers.

G. Prescribe, when necessary, the time and conditions under which certain pesticides may be used in different areas of the

State, and provide, if necessary, that extremely hazardous materials shall be applied only under special permission from the Board.

H. Define, when necessary, the formulations and establish the conditions and appropriate areas for aircraft application of any pesticides.

I. Create guidelines and requirements for the application of pesticides by public agencies and bodies politic. These shall include the qualifications of the responsible employees and provision of records to the Board.

J. Design and conduct an appropriate educational program on the values of pesticides and the necessity for care in their application.

K. Encourage research which will contribute to the optimal uses of pesticides for maximum public benefit and minimum public damage.

L. Establish such record systems for pesticide use as may be essential for the public welfare.

M. Employ such inspectors and other employees as may be necessary for the proper enforcement of the provisions of this Act and the rules and regulations promulgated hereunder.

IV. Advisory Committee.

A. An Advisory Committee on Pesticides shall be appointed by the Governor to assist the Board in the continuing review of

Maryland problems and in meeting needs relating to the uses of pesticides. The Committee shall include one representative each of the Maryland Department of Health, State Board of Agriculture, ornamental horticulturists, fruit and vegetable growers, tobacco growers, food processors, pest control operators, arborists, the pesticide chemical industry, aerial custom pesticide applicators, ground custom herbicide applicators, one person from the University of Maryland engaged in research or extension work relating to pesticides, two designees of the Maryland Board of Natural Resources and at least one representative of the public at large. Members shall be appointed for terms of three years, except that initial appointments shall provide for one-third of the members to serve for one year, one-third for two years, and one-third for three years.

B. The Advisory Committee shall meet at least once in each fiscal year and at such other times as the Board or Committee, by majority vote, may decide upon.

C. Members of the Committee shall receive no compensation for their services, but shall be reimbursed for travel and other necessary expenses incurred in the performance of their duties.

V. Exemptions from Licensing Provisions.

All applications of pesticides shall be by licensed persons with the following exemptions:

1. The application by aircraft of any substance with the intention of changing, or tending to change, atmospheric conditions.

2. The application of fertilizer, seeds, or any other similar substances so specified by the Board, when applied by some medium other than aircraft, unless they contain pesticides.

3. Application of pesticides under permit for research or other purposes from the Board to recognized colleges and universities, state agencies, municipalities, public utilities, private individuals or organizations; or application by the U. S. Department of Agriculture or other federal agencies.

4. The application of preservative treatments to fabric or structural materials, or household or industrial sanitation services.

5. Application of anti-dessicants to ornamental plants.

6. Application as a grower operating or supervising the operation of his own equipment, of any pesticides upon such individual's own property or upon the property of another, when the latter operations are performed without consideration other than the exchange of labor or equipment.

7. Applying pesticides in or around one's owned or rented domicile.

8. Performing manual labor to help or assist in the application of pesticides by a registered custom applicator, pest

control operator, or by a person applying pesticides to his owned or rented home, garden, or yard.

VI. Supervision of Custom Work Applicators.

All custom application of pesticides shall be under the supervision of a licensed custom applicator or pest control operator who is responsible and liable for performance.

VII. Usage in Accordance with Label.

It is unlawful for any person or agency of state or local government to use, apply, or recommend use of a pesticide other than as specified by the label. For the purpose of this subtitle, the label shall include, but is not limited to, material attached to the container, brochures and information furnished with the pesticides and information contained in the approved state registration of the pesticide. Further, it is unlawful for any person or agency of the state or local government to use, apply, or recommend use of a pesticide in a manner other than as specified by this Act or rules and regulations which may be promulgated under this Act.

VIII. Gifts, grants and contracts. The Board is authorized to receive gifts, contributions, or funds for use in carrying out its functions. In addition, the Board may receive grants or contracts or issue grants or contracts which contribute to achievement of its functions.

IX. Inspection and authority to enter.

A. The Board may provide for inspection of any ground equipment or of any device or apparatus used for custom application of pesticides by aircraft and may require proper repairs or other changes before its further use for custom application.

B. In enforcing this sub-title, the Board, or its duly authorized agents, shall have the authority to enter upon and inspect any public or private premises at reasonable times, in order (1) to inspect the property before issuing a license for the application of a pesticide thereon and to observe the surrounding areas; (2) to inspect aircraft and ground equipment subject to this Act; or (3) to inspect crops, animals, or other property actually or reported to be exposed to substances applied by such equipment.

X. Violations and penalties.

Any person who violates any provision of this Act or fails to perform any requirement hereof shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not less than twenty-five ($25.00) dollars nor more than one thousand ($1,000) dollars, or by imprisonment for a period not exceeding sixty (60) days, or both such fine and jail sentence. Rules and regulations promulgated by the Board shall have the force and effect of law and any violation thereof shall be a violation of this Act. The penalty provided herein shall in no way affect any civil liability of the person convicted hereunder.

XI. Separability.

If any provision of this Act or its application to any person or circumstance is held invalid by a court of competent jurisdiction, the remaining provisions shall nevertheless be valid the same as if the portion held invalid had never been adopted, it being the intention of the Legislature to enact the remaining portions of the Act separately and the invalidity of any part shall not affect the validity of the remainder.

MARYLAND COMMISSION ON PESTICIDES

Frank J. Burke - Maryland Arborist Association*

Howard E. Chaney - Maryland Dept. of Health

L. Eugene Cronin - Maryland Board of Natural Resources

Bruce E. Crum - Maryland Grange

Thomas C. Duley - Public

Stephen S. Easter - Public

Adolph E. Gude, Jr. - Florists

Dr. Bernard Krafchick - Maryland Pest Control Association

C. A. Porter Hopkins - Legislature

Dr. George Langford - University of Maryland

Richard S. LeVieux - Public

Edwin D. Long, Jr. - Vegetable Producers

Richard L. Marshall - Nurserymen

C. Brooks Nagel - Public

G. Willard Oakley - Farm Bureau

George H. Reid, Jr. - Chemical manufacturers

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Robert Rubelmann - Maryland Dept. of Game & Inland Fish

Albert Sanderson, Jr. - Maryland Dept. of Water Resources

Frederick W. Sieling - Maryland Dept. of Chesapeake Bay Affairs

Dr. Joseph J. Wineburgh - Exterminators

*Indicates group represented by member

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